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### Tetanus Toxoid Immunization Viewed From The Attitude And Family Support Of Pregnant Women At The Samkai Community Health Center

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#### **ABSTRACT**

Tetanus infection is one of the causes of maternal and infant mortality. This study aims to determine Tetanus Toxoid Immunization in viewed from attitudes and family support of pregnant women at the Samkai Community Health Center. This study uses a research design Analytical Observational with approach cross sectional. With technique accidental sampling A sample of 57 respondents was obtained, the independent variable (attitude and family support) and the dependent variable (tetanus toxoid immunization) used a questionnaire. Statistical tests are used *Chi-Square* to find out the relationship between the two variables. The results of research from 57 respondents showed that mothers' attitudes regarding tetanus toxoid immunization were mostly negative, namely 37 respondents (64.9%), family support regarding tetanus toxoid immunization was mostly unsupportive, namely 32 respondents (56.1%), and most mothers did not receive complete tetanus toxoid immunization, namely 40 respondents (70.2%). Analysis using the Chi-Square statistical test showed that there was a relationship between tetanus toxoid immunization in terms of attitudes towards pregnant women with a p value = 0.001 < 0.05, and there was a relationship between tetanus toxoid immunization in terms of family support for pregnant women with a p value = 0.003 < 0.05. There is a need for health workers, especially midwives, to provide education about the importance of Tetanus Toxoid immunization and monitor the completeness of complete Tetanus Toxoid immunization, especially for pregnant women.

Keywords: Attitude, Family Support, Tetanus Toxoid Immunization

#### **INTRODUCTION**

Tetanus toxoid immunization is the administration of bacteria that have been weakened and purified. Providing immunization to babies, children and mothers is one of the efforts to prevent contracting tetanus. Apart from that, Tetanus Toxoid immunization is also given to pregnant women and women who are getting married (Fauziah and Siampa, 2019).

Recorded data from the World Health Organization (WHO) calculates that the global incidence of tetanus in the world is roughly around 0.5-1 million cases and around 50% in developing countries. The estimated global incidence of tetanus is 18 per 100,000 population per year. Tetanus can occur throughout the world and is still a very important cause of death with a death toll of 800,000-1,000,000 people per year. In developing countries like Indonesia, the incidence and death rate from tetanus is still quite high. Therefore tetanus is still a health problem (Ratnasari, 2022).

The Indonesian Health Profile regarding Tetanus Toxoid Diphtheria (Td) immunization coverage in Indonesia in 2019 shows that women of childbearing age who received Td1 was 0.90%, Td2 was 0.72%, Td3 was 1.05%, Td4 was 2.08%, Td5 was 8.02%, and Td2+ (complete

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TT) was 64.88%. Tetanus Toxoid Diphtheria (Td) immunization coverage in Indonesia in 2020 shows that 20.10% of women of childbearing age received Td1, 18.6% Td2, 9.6% Td3, 9.2% Td4, 15% Td5 .8%, and Td2+ (complete TT) was 54.7%. Then, Tetanus Toxoid Diphtheria (Td) immunization coverage in Indonesia in 2021 shows that 17.4% of women of childbearing age received Td1, 16.5% Td2, 9.5% Td3, 7.8% Td4, 7.8% Td5 of 12.5%, and Td2+ (complete TT) of 46.4%. It can be concluded that in the last 3 years, Indonesia has continued to experience a decline in the percentage of complete Tetanus Toxoid immunization among pregnant women (Ministry of Health of the Republic of Indonesia, 2022).

Tetanus Toxoid Diphtheria (Td) immunization coverage in Papua Province in 2019 shows that 29.06% of women of childbearing age received Td2+ (complete TT), in 2020 coverage decreased by 23.2%, and in 2021 there was a slight increase of 23 .9% (RI Ministry of Health, 2022).

Based on data on Tetanus Toxoid Diphtheria (Td) immunization coverage in Merauke Regency in 2020, it shows that 19.53% of women of childbearing age received Td1, 13.24% Td2, 13.41% Td3, 7.79% Td4, Td5 was 12.19%, and Td2+ (complete TT) was 25.7%. 2021 shows that 18.42% of women of childbearing age received Td1, 12.90% Td2, 11.30% Td3, 5.62% Td4, 8.36% Td5, and 8.36% Td2+ (complete TT) amounted to 18.8%. Then, Tetanus Toxoid Diphtheria (Td) immunization coverage in 2022 shows that 23.20% of women of childbearing age received Td1, 15.90% Td2, 14.80% Td3, 9.22% Td4, 12 Td5 .14%, and Td2+ (complete TT) was 26.3%. Samkai Community Health Center is one of the Community Health Centers in Merauke Regency (Merauke District Health Service, 2023).

Based on data on Tetanus Toxoid Diphtheria (Td) immunization coverage at the Samkai Community Health Center in 2021, it shows that 4.0% of women of childbearing age received Td1, 2.1% Td2, 2.5% Td3, 1.4% Td4, Td5 was 1.7%, and Td2+ (complete TT) was 30.5%. In 2022, it shows that women of childbearing age will receive Td1 at 4.0%, Td2 at 1.5%, Td3 at 2.6%, Td4 at 1.4%, Td5 at 1.4%, and Td2+ (complete TT) amounting to 35.3% (Merauke District Health Service, 2023).

According to PERMEKES RI Number 12 of 2017 concerning the Implementation of Immunization, Tetanus Toxoid immunization is mandatory. The Indonesian government is targeting a pregnancy Tetanus Toxoid immunization program of 80%, but in reality it has not yet reached the set target (Durrotun, 2021).

The attitude of pregnant women is known to have an influence on pregnant women to carry out Tetanus Toxoid immunization. The background to a good mother's attitude is influenced by the mother's actions in accepting, responding, appreciating and being responsible during her pregnancy to receive tetanus toxoid immunization. Therefore, whether a person's actions are good or bad in complying with immunization depends on the person's own reaction or response (Muhammad Irham Nur, 2021).

Family support is a preventive intervention strategy that is best at helping family member's access social support that has not yet been explored for appropriate strategic assistance aimed at increasing adequate family support. Encouragement from the family is needed in carrying out TT immunization because with support from the family, a mother feels given encouragement to increase compliance in carrying out Tetanus Toxoid immunization. Family support factors also play an important role, as do the mother's knowledge and attitudes. Without support from the family, a pregnant mother's compliance in carrying out immunizations will not go according to the pregnant mother's wishes (Musfirah, Rifai and Kilian, 2021).

A preliminary study was conducted by researchers at the Samkai Community Health Center in September 2023, with direct interviews with 5 pregnant women, 3 of whom did not carry out tetanus toxoid immunization because they still did not understand about Tetanus Toxoid immunization, some were afraid of being injected, then there were the experience of

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mothers who gave birth without receiving tetanus toxoid immunization during pregnancy and their babies were born without neonatal tetanus, the mother's attitude of being less caring, and the lack of family support with Tetanus Toxoid immunization.

In research conducted by Odang, Sir and Hinga with the title "Overview of Knowledge, Attitudes and Support of Husbands Regarding TT Immunization for Pregnant Women at the Sikumana Health Center" showed that the immunization status of pregnant women in the third trimester was incomplete as much as 91.7%. Knowledge of third trimester pregnant women was categorized as lacking at 76.7%. The attitude of pregnant women in the third trimester was categorized as good by 85% and their husband's support was categorized as not supportive by 83.3%. It is hoped that education about providing tetanus toxoid immunization will not only be held at mothers' meetings at integrated health center, but also among women of childbearing age and the wider community so that they know the importance of tetanus toxoid immunization (Odang, Sir and Hinga, 2023).

Based on the background above, the author is interested in conducting research on Tetanus Toxoid Immunization in terms of attitudes and family support towards pregnant women at the Samkai Community Health Center.

#### **METHODS**

This research uses a research design Analytical Observational with approach cross sectional. With technique accidental sampling A sample of 57 respondents was obtained, the independent variable (attitude and family support) and the dependent variable (tetanus toxoid immunization) used a questionnaire. Statistical tests are used Chi-Square to find out the relationship between the two variables. Data analysis found that there was a relationship between tetanus toxoid immunization in terms of attitudes towards pregnant women with a p value = 0.001 < 0.05, and there was a relationship between tetanus toxoid immunization in terms of family support for pregnant women with a p value = 0.003 < 0.05.

RESULT

**Table. 1 Distribution of Respondent Characteristics and Variables** 

Research result	Frequency (f)	Percent (%)	
Age			
<20 years	27	47,4	
20-35 Years	21	36,8	
>35 Years	9	15,8	
Education			
SD	25	43,9	
JUNIOR HIGH SCHOOL	20	35,1	
Senior high school	7	12,3	
College	5	8,8	
Mother's attitude			
Negative	37	64,9	
Positive	20	35,1	
Family support			
Does not support	32	56,1	
Support	25	43,9	
<b>Tetanus Toxoid immunization</b>			
Not getting complete			
Tetanus Toxoid	40	70,2	
immunization			
Get complete Tetanus Toxoid immunization	17	29,8	
Amount	57	100	

Source: Research Questionnaire, 08 December 2023

**Table 2. Cross Tabulation Between Variables** 

			Tetanus Toxoio	Total	
			Criteria		
			Not Getting	Get Complete	
			Complete	Tetanus	
			Tetanus	Toxoid	
			Toxoid	Immunization	
			Immunization		
Criteria for	Negative	Frequency	32	5	37
Mother's		%	80%	29,4%	64,9%
Attitude	Positive	Frequency	8	12	20
		%	20%	70,6%	35,1%
Total		Frequency	40	17	57
		%	100%	100%	100%
Family	Does not	Frequency	28	4	32
Support	support	%	70%	23,5%	56,1%
Criteria	Support	Frequency	12	13	25
		%	30%	76,5%	43,9%
Total		Frequency	40	17	57
		%	100%	100%	100%

Source: Research Questionnaire, 08 December 2023

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Based on table 2 above, it is known that of the 40 mothers, the majority had a negative attitude and did not receive complete Tetanus Toxoid immunization, namely 32 people (80%), and the majority of families did not support it and the mothers did not get complete Tetanus Toxoid immunization, namely 28 people (70%).

**Analysis of Research Statistical Test Results** 

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	11.275	.001
N of valid Cases		57	

The chi square test results show that p value = 0,001 < 0,05 eye  $H_0$  rejected and  $H_1$  accepted which means it exists relationship between tetanus toxoid immunization in terms of attitudes towards pregnant women at the Samkai Community Health Center.

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	8.661	.003
N of valid Cases		57	

The chi square test results show that p value = 0.003 < 0.05 eye  $H_0$  rejected and  $H_1$  accepted which means it exists The relationship between tetanus toxoid immunization in terms of family support for pregnant women at the Samkai Community Health Center.

#### **DISCUSSION**

#### Attitude

Based on table 1, it is known that the majority of mothers have a negative attitude about tetanus toxoid immunization, namely 37 respondents (64.9%).

The results of this research are in line with research conducted by (Murniati, 2023), that the majority of respondents had a negative attitude, 23 people (54.8%), and a small number of respondents had a positive attitude, 19 people (45.2%).

The attitude of pregnant women is known to have an influence on pregnant women to carry out Tetanus Toxoid immunization. The background to a good mother's attitude is influenced by the mother's actions in accepting, responding, appreciating and being responsible during her pregnancy to receive tetanus toxoid immunization. Therefore, whether a person's actions are good or bad in complying with immunization depends on the person's own reaction or response (Muhammad Irham Nur, 2021).

The more respondents who understand about Tetanus Toxoid immunization, the more positive the attitude that respondents will take and will understand the benefits of carrying out Tetanus Toxoid (catin) immunization (Meiriza and Triveni, 2018).

In the opinion of researchers, a positive attitude is very necessary for women of childbearing age in providing Tetanus Toxoid immunization because with a positive attitude, pregnant women will receive information about Tetanus Toxoid immunization and will try to feel the benefits of Tetanus Toxoid immunization, so that pregnant women can comply with Complete Tetanus Toxoid immunization.

In this study, the mother had a negative attitude about tetanus toxoid immunization because for the mother Tetanus Toxoid immunization was a pointless thing to do because it was not a form of treatment, the mother had never looked for information about Tetanus Toxoid immunization so the mother did not really know about Tetanus Toxoid

Tetanus Toxoid immunization, the mother felt that Tetanus Toxoid immunization is not a necessity for mothers, mothers think that Tetanus Toxoid injections are necessary only if they have experienced tetanus, and mothers do not yet know that Tetanus Toxoid status must be completed in order to avoid tetanus forever.

#### **Family support**

Based on table 1, it is known that the majority of families do not support tetanus toxoid immunization, namely 32 respondents (56.1%).

The results of this research are different from research conducted by (Fikarsih Ponda Catur Rika, 2018), showing that the frequency distribution of family support for respondents who received good family support was 45 respondents (64.3%), while 25 respondents (35.7%) had poor family support.

In the researcher's opinion, family support as the closest environment to pregnant women plays an important role in fulfilling the psychology and motivation of pregnant women in carrying out tetanus toxoid immunization. With support from the family, pregnant women can carry out complete TT immunization. Support provided from the family can be in the form of help, attention, appreciation, and so on.

In this study, the family did not support the implementation of TT immunization for pregnant women as seen from the husband's actions in not taking his wife to a health facility to get complete TT immunization, the husband not giving advice to the wife to carry out TT immunization regularly according to the visit schedule, parents not providing information about the importance of having complete TT immunization, as well as parents or in-laws not providing support for mothers to go to health facilities regularly to get complete TT immunization.

#### **Tetanus Toxoid Immunization**

Based on table 1, it is known that the majority of mothers did not receive complete TT immunization, namely 40 respondents (70.2%).

Based on research conducted by (Mahduroh, Fatima and Jayatmi, 2023), of the 32 respondents, the majority did not carry out TT immunization, 17 respondents (53.1%) while there were 15 respondents who did TT immunization (46.9%).

According to (Durrotun, 2021), obstacles in implementing tetanus toxoid immunization have been identified, including aspects of age, education, perception, distance from home to health service center, employment, family or husband support, mother's knowledge, parity, ANC visits and motivation.

In the researcher's opinion, mothers do not receive complete TT immunization because the mother's attitude does not consider complete TT immunization important, and in addition to the lack of family support, mothers become lazy about carrying out complete TT immunization.

Apart from attitude factors and family support, if we look at the characteristics of the respondents, most of them are aged < 20 years and have an elementary school education. Age is one of the factors that influences the implementation of tetanus toxoid immunization. Young pregnant women are still unstable in making decisions so they still depend on other people to consider the decisions they will take. In this way, individuals who are more mature understand and are able to make good decisions for themselves, one of which is the decision to carry out complete TT immunization.

Apart from the age factor, the mother's education also plays a role. The higher a person's level of education, the easier it is to receive information from someone. Pregnant women with high intellectual power find it easier to make decisions. Meanwhile, pregnant women whose level of education is less will result in less intellectual power, resulting in a lack of compliance in making decisions about tetanus toxoid immunization and will depend on the behavior of the people around them, such as husbands or parents.

# Relationship between Pregnant Women's Attitudes towards Tetanus Toxoid Immunization

Based on table 2, it shows that most of the 40 mothers had a negative attitude and did not receive complete TT immunization, namely 32 people (80%). The chi square test results show that p value = 0,001 < 0,05 eye  $H_0$  rejected and  $H_1$  accepted, which means there is a relationship between tetanus toxoid immunization in terms of attitudes towards pregnant women at the Samkai Community Health Center.

The results of this research are different from research conducted by (Meiriza and Triveni, 2018), it can be seen that of the 52 respondents, the majority of respondents, namely 35 respondents (67.3%) had a positive attitude towards Tetanus Toxoid (Catin) Immunization. From these results, a chi square test was carried out using computerization and the result was  $P \times 10^{-2} = 0.39 \, (p > 0.05)$ , statistically Ho was accepted so that there was no relationship between maternal attitudes and the implementation of Tetanus Toxoid (Catin) Immunization in the working area of the Padang Luar Community Health Center. Agam Regency in 2018.

The attitude of pregnant women is known to have an influence on pregnant women to carry out TT immunization. The background to a good mother's attitude is influenced by the mother's actions in accepting, responding, appreciating and being responsible during her pregnancy to receive tetanus toxoid immunization. Therefore, whether a person's actions are good or bad in complying with immunization depends on the person's own reaction or response (Muhammad Irham Nur, 2021).

In the researcher's opinion, the mother has a negative attitude about tetanus toxoid immunization because for the mother TT immunization is a pointless thing to do because it is not a form of treatment, the mother has never looked for information about TT immunization so the mother does not really know about TT immunization, the mother feels that TT immunization is not a necessity for mothers, mothers think that TT injections are necessary only if they have experienced tetanus, and mothers do not yet know that TT status must be completed in order to avoid tetanus forever. So, the more respondents understand about TT immunization, the more positive the attitude that respondents will take and they will understand the benefits of TT immunization and vice versa.

In the research results, there were 5 respondents who had a negative attitude about tetanus toxoid immunization but still received complete TT immunization because the respondents had family support. So even though the respondent's attitude is negative, with family support the respondent continues to carry out TT immunization. Without support from the family, a pregnant woman's compliance with immunization will not work because she follows the pregnant woman's wishes.

Apart from that, there were 8 respondents who had a positive attitude about tetanus toxoid immunization but did not receive complete TT immunization due to lack of support from their families. Encouragement from the family is needed in carrying out TT immunization because with support from the family, a mother feels given encouragement to increase compliance in carrying out TT immunization.

# Relationship between Family Support of Pregnant Women and Tetanus Toxoid Immunization

Based on table 2, it shows that of the 40 mothers, most of the families did not support it and the mothers did not receive complete TT immunization, namely 28 people (70%). The chi square test results show that p value = 0.003 < 0.05 eye  $H_0$  rejected and  $H_1$  accepted which means there is a relationship with tetanus toxoid immunization in terms of family support for pregnant women at the Samkai Community Health Center.

The results of a similar study conducted by (Aldriana, 2022), showed that respondents who were given TT immunization received the most family support, namely 63 people. Meanwhile, the statistical test results obtained a p value = 0.00 (<0.05), so it can be concluded that there is a significant relationship between family support factors for providing TT immunization. The OR value = 4.99 means that those who received family support were 4.99 more likely to carry out TT catin immunization than those who did not receive family support.

Family support is a preventive intervention strategy that is best at helping family members access social support that has not yet been explored for appropriate strategic assistance aimed at increasing adequate family support. Encouragement from the family is needed in carrying out TT immunization because with support from the family, a mother feels

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given encouragement to increase compliance in carrying out TT immunization. Family support factors also play an important role, as do the mother's knowledge and attitudes. Without support from the family, a pregnant mother's compliance in carrying out immunizations will not go according to the pregnant mother's wishes (Musfirah, Rifai and Kilian, 2021).

In the researcher's opinion, the family does not support the implementation of TT immunization for pregnant women as seen from the husband's actions in not taking his wife to a health facility to get complete TT immunization, the husband not giving advice to the wife to carry out TT immunization regularly according to the visit schedule, the parents not providing information about the importance of having complete TT immunization, as well as parents or in-laws not providing support for mothers to go to health facilities regularly to get complete TT immunization. Family support is very important, because if immunization is carried out without support, then prospective patients who will be given immunization will not be willing to accept immunization, and ultimately prospective patients will not receive TT immunization. In fact, TT immunization is important as a defense for prospective mothers to prepare for pregnancy and childbirth.

In the research results, there were 4 respondents who did not receive family support regarding tetanus toxoid immunization but still received complete TT immunization because the respondents routinely visited ANC. When carrying out ANC, the good attitude of health workers influences the mother's motivation to get immunization. For example, officers who provide good service always ask about complaints they are experiencing and remind them of the next examination, including reminding them to carry out TT immunization according to a predetermined schedule.

In addition, there were 12 respondents who received family support regarding tetanus toxoid immunization but did not receive complete TT immunization due to the respondents' low education. Pregnant women whose level of education is less will result in less intellectual power, resulting in a lack of compliance in making the decision to carry out complete tetanus toxoid immunization.

#### **CONCLUSION**

- 1. Most mothers' attitudes regarding tetanus toxoid immunization were negative, namely 37 respondents (64.9%).
- 2. Family support regarding tetanus toxoid immunization was largely unsupportive, namely 32 respondents (56.1%).
- 3. Most mothers did not receive complete tetanus toxoid immunization, namely 40 respondents (70.2%).
- 4. There is a relationship between tetanus toxoid immunization in terms of attitudes towards pregnant women with a value (p) of 0.001 (p < 0.05).
- 5. There is a relationship between tetanus toxoid immunization in terms of family support for pregnant women with a value (p) of 0.003 (p < 0.05)

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